# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
## BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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| Application. No: 10/021,728 | § |
| Filed: December 12, 2001 | § |
| Inventor(s):<br>David W. Fuller, Sundeep Chandhoke, Nicolas Vazquez and Christopher Cifra | § § § § § § |
| Title: SYSTEM AND METHOD FOR PROVIDING SUGGESTED GRAPHICAL PROGRAMMING OPERATIONS | § § § § § § § § |
| Examiner: Bayerl, Raymond J. | § |
| Group/Art Unit: 2173 | |

Atty. Dkt. No: 5150-54300

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Commissioner for Patents, Alexandria, VA 22313-1450, on the date indicated below.

Jeffrey C. Hood

September 1, 2005
Date

Signature

## APPEAL BRIEF

**Box: Appeal Brief - Patents**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

Further to the Notice of Appeal filed July 1, 2005, Appellant presents this Appeal Brief. Appellant respectfully requests that this appeal be considered by the Board of Patent Appeals and Interferences.

# I.     REAL PARTY IN INTEREST

The subject application is owned by National Instruments Corporation, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having its principal place of business at 11500 N. MoPac Expressway, Bldg. B, Austin, Texas 78759-3504.

# II.     RELATED APPEALS AND INTERFERENCES

No related appeals or interferences are known which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

# III.     STATUS OF CLAIMS

Claims 1 – 37 were originally filed in the application. In an amendment filed December 13, 2004, claims 1, 7, 11-17, 19, 27-31, 34, and 36 were amended; claims 5, 6, 22, 23, and 33 were canceled; and new claims 38-55 were added. In another amendment filed June 9, 2005, claim 19 was amended. Claims 1-4, 7-21, 24-32, and 34-55 are pending in the application.

All the pending claims stand rejected and are the subject of this appeal. Claims 1-4, 7-10, 17-21, 24-26, 31-32, 34-35, 38-39, 42-50, 54, and 55 stand rejected under 35 USC 102(b). Claims 11-16, 27-30, 36-37, 40-41, and 51-53 stand rejected under 35 USC 103(a). A copy of the pending claims incorporating entered amendments, and as on appeal, is included in the Claims Appendix hereto.

# IV.     STATUS OF AMENDMENTS

The Advisory Action of June 24, 2005 indicated that the amendment after final rejection filed June 9, 2005 was entered. No amendments to the claims have been filed subsequent to the amendment of June 9, 2005.

## V.    SUMMARY OF THE CLAIMED SUBJECT MATTER

The independent claims under appeal relate generally to a graphical programming development environment operable to aid a user in creating a graphical program by determining and indicating suggested nodes and/or user interface elements to include in the graphical program.

For example, as recited in the method of claim 1, user input is received, where the user input selects one or more nodes to include in the graphical program from at least one first palette.  The at least one first palette presents a plurality (e.g., a subset) of all available nodes for selection.  The one or more selected nodes are included in the graphical program in response to being selected by the user from the at least one first palette.  One or more suggested nodes to include in the graphical program are displayed in a second palette.  The one or more suggested nodes are displayed based on the one or more nodes selected by the user input, i.e., based on the nodes already included in the graphical program.

The second palette is separate from the at least one first palette, and the one or more suggested nodes displayed in the second palette are selectable by the user for inclusion in the graphical program.  For example, the graphical programming development environment may provide one or more palettes for selecting nodes for inclusion in the graphical program, i.e., the "at least one first palette" described above. For example, all the available nodes may be organized on these palettes according to their functionality.  The graphical programming development environment may also provide a "suggestion palette", i.e., the second palette, which is separate from these other palettes and is easily accessible to the user and allows the user to select the suggested nodes displayed in the suggestion palette for inclusion in the graphical program.  (*See Summary of the Invention, p. 6, line 1 – p. 7, line 17; Figure 4*)

Claims 19 and 31 are memory medium and system claim analogues to the method claim 1.

Claim 34 recites similar elements as claim 1. A graphical programming window for creating a graphical program is displayed. One or more nodes are displayed in the window in response to user input selecting the one or more nodes from at least one first palette. The at least one first palette presents a plurality of all available nodes for selection. One or more suggested nodes are determined in response to the user input. The one or more suggested nodes are displayed in a second palette. The second palette is separate from the at least one first palette, and the one or more suggested nodes are selectable by the user for inclusion in the graphical program. (*See Summary of the Invention, p. 6, line 1 – p. 7, line 17; and Figure 4*)

Claim 35 relates to a method for displaying suggested user interface elements to include in a graphical user interface of a graphical program. A window for creating the graphical user interface for the graphical program is displayed. One or more user interface elements are displayed in this window in response to user input. For example, the one or more user interface elements may be displayed in the window in response to user input requesting the user interface elements to be included in the graphical user interface of the graphical program. One or more suggested user interface elements are determined in response to the user input that caused the one or more user interface elements to be displayed in the window, and the one or more suggested user interface elements are displayed. (*See Specification, p. 25, line 25 – p. 26, line 10*)

Claim 36 relates to a method for displaying suggested steps to include in a script. User input is received, where the user input selects one or more steps to include in the script from at least one first palette, and where the at least one first palette presents a plurality of all available steps for selection. The one or more selected steps are included in the script. One or more suggested steps to include in the script are displayed in a second palette, based on the one or more steps selected by the user input. The second palette is separate from the at least one first palette, and the one or more suggested nodes are selectable by the user for inclusion in the graphical program. (*See Specification, p. 26, line 13 – p. 27, line 9; and Figure 5*)

Claim 38 relates to a method for displaying suggested nodes to include in a graphical program, where the suggested nodes are displayed as shadow nodes that follow a mouse cursor. Other than displaying the suggested nodes as shadow nodes that follow a mouse cursor, claim 38 recites similar elements as discussed above. (*See Summary of the Invention, p. 7, lines 18-29*)

Claim 39 is memory medium claim analogue to the method claim 38.

Claim 40 relates to a method for indicating suggested nodes to include in a graphical program, where the suggested nodes are indicated by providing audio suggestions. Other than indicating the suggested nodes by providing audio suggestions, claim 40 recites similar elements as discussed above. (*See Summary of the Invention, p. 8, lines 1-7*)

Claim 41 is memory medium claim analogue to the method claim 40.

Claim 42 relates to a method for displaying suggested nodes to include in a graphical program. Claim 42 recites similar elements as the method of claim 1, and also recites the element of including the one or more suggested nodes in the graphical program. The one or more suggested nodes included in the graphical program are selectable by the user for removal from the graphical program. (*See Summary of the Invention, p. 6, line 1 – p. 7, line 17; p. 8, lines 5-7; and Figure 4*)

Claim 43 is memory medium claim analogue to the method claim 42.

Claim 44 relates to a method for displaying suggested nodes and suggested user interface elements to include in a graphical program. Claim 44 recites similar elements as discussed above.

Claim 45 is memory medium claim analogue to the method claim 44.

Claim 46 relates to a method for displaying suggested nodes to include in a graphical program. User input is received, where the user input selects one or more nodes to include in the graphical program from at least one first graphical user interface. The at least one first graphical user interface presents a plurality of all available nodes for selection. The one or more nodes selected by the user input are included in the graphical program. One or more suggested nodes to include in the graphical program are displayed in a second graphical user interface. The one or more suggested nodes are displayed based on the one or more nodes selected by the user input. The second graphical user interface is separate from the at least one first graphical user interface. The one or more suggested nodes are selectable by the user for inclusion in the graphical program. (*See Summary of the Invention, p. 6, line 1 – p. 7, line 17; Figure 4*)

Claim 54 is memory medium claim analogue to the method claim 46.

Claim 55 relates to a method for displaying suggested nodes to include in a graphical program. Claim 55 recites similar elements as discussed above.

## VI.    GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-4, 7-10, 17-21, 24-26, 31-32, 34-35, 38-39, 42-50, 54, and 55 stand rejected under 35 USC 102(b) as being anticipated by Sojoodi et al. (U.S. Patent No. 5,784,275, hereinafter "Sojoodi").

Claims 11-16, 27-30, 36-37, and 51-53 stand rejected under 35 USC 103(a) as being unpatentable over Sojoodi in view of Choy et al. (U.S. Patent No. 5,506,952, hereinafter "Choy").

Claims 40 and 41 stand rejected under 35 USC 103(a) as being unpatentable over Sojoodi in view of Thomsen et al. (U.S. Patent No. 6,064,409, hereinafter "Thomsen").

## VII. ARGUMENT

### Claims 1-4, 10, 12, 18-21, 26, 28, 31, and 34

Claim 1 stands rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Appellant respectfully traverses this rejection. Claim 1 recites as follows:

> 1. (Previously Presented) A computer-implemented method for creating a graphical program, the method comprising:
> receiving user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;
> including the one or more selected nodes in the graphical program; and
> displaying one or more suggested nodes to include in the graphical program in a second palette, based on the one or more nodes selected by the user input, wherein the second palette is separate from the at least one first palette, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

Sojoodi does not teach numerous elements of claim 1. For example, Sojoodi does not teach, "displaying one or more suggested nodes to include in the graphical program in a second palette, based on the one or more nodes selected by the user input". In the rejection of claim 1, the Examiner refers to the palettes illustrated in Fig. 7 of Sojoodi and asserts that, "Sojoodi, as is seen in fig 7 and others, provides palettes at each stage of a graphical program's entry sequence, thus reading directly upon the 'first palette' and 'separate' 'second palette' that are seen in claim 1." Also, in the Advisory Action of June 24, 2005, the Examiner asserts that,

> "Sojoodi (US #5,784,275), in presenting additional palettes in conjunction with a help operation (see fig 7) teaches that, after first nodes (or interface elements) are selected, a second palette with further such items that can be of use is presented, and thus, a suggestion is made. Additionally, Sojoodi's use of sequentially-presented palettes for ongoing input of nodes, in general, is sufficient to anticipate the claimed invention."

Appellant disagrees and submits that the Examiner has mischaracterized the palettes shown in Fig. 7 of Sojoodi. Sojoodo does not describe the palettes shown in Fig. 7 in detail. However, Appellant notes that the palettes shown in Fig. 7 are from the LabVIEW 4.0 graphical programming system from National Instruments Corp. Sojoodi states that, "The drawings of the present disclosure include numerous screen shots

displayed during the execution of LabVIEW 4.0, which includes support for the VISA standard" (Col. 12, lines 9-11). Fig. 7 is a screen shot taken directly from the LabVIEW 4.0 graphical programming system and illustrates a hierarchy of palettes that provide access to function nodes.

In the LabVIEW 4.0 graphical programming system, the user navigates through palettes in a hierarchical manner until the desired function node is reached. For example, in Fig. 7, the back-most palette labeled "Functions" in its title bar is first displayed. This palette does not display individual function nodes, but rather displays icons representing general <u>categories</u> of function nodes. For example, the "Functions" palette includes an "Instrument I/O" category which the user selects to cause the palette labeled "Instrument I/O" to be displayed next. The "Instrument I/O" palette similarly displays icons representing categories of function nodes related to performing I/O operations using instrumentation devices. In particular, the "Instrument I/O" palette includes a "VISA" category which the user selects to cause the palette labeled "VISA" to be displayed next. When the "VISA" palette is displayed, the user has reached the end of the hierarchy for the particular branch of the palette tree which he has navigated down, and thus, the "VISA" palette displays actual function node icons instead of icons representing further categories. Thus, the user may then include function nodes from the "VISA" palette in the graphical program under development, e.g., by dragging them from the "VISA" palette and dropping them into a block diagram of the graphical program.

With this explanation as background, it will readily be seen that Sojoodi's palettes are not displayed according to the method recited in claim 1. Claim 1 recites in part, "receiving user input selecting one or more nodes to include in the graphical program from at least one first palette" and "displaying one or more suggested nodes to include in the graphical program in a second palette, <u>based on the one or more nodes selected by the user input</u>". Thus, in claim 1, the one or more suggested nodes are displayed in the second palette based on the one or more <u>nodes</u> the user selected to include in the graphical program. However, in Fig. 7 of Sojoodi, the icons in a successively displayed palette are not displayed based on any nodes selected for inclusion in the graphical program. Instead, the palette is displayed in response to the user selecting a particular category, where the palette serves to display the nodes (or subcategories) in that category.

Al the nodes in the selected category are displayed, regardless of which nodes are already included in the graphical program.

Furthermore, the nodes displayed in the palette at the end of the hierarchy that the user navigates down are not <u>suggested</u> nodes at all. The palette merely displays all the nodes in the category which the user requested to be displayed. Merely displaying all the nodes in the category which the user requested to be displayed is not at all what is meant by "displaying one or more <u>suggested</u> nodes to include in the graphical program". Furthermore, the nodes displayed in the palette are certainly not suggested <u>based on one or more nodes that the user selected to include in the graphical program,</u> as recited in claim 1.

Appellant also notes that the Examiner has taken one of the palettes displayed in Fig. 7 to mean the "second palette" recited in claim 1, which is not logically compatible with the combination of elements recited in claim 1. Claim 1 recites that, "the at least one first palette presents a plurality of <u>all available nodes for selection</u>" and that "the second palette is separate from the at least one first palette". However, if one of the palettes displayed in Fig. 7 is taken to mean the second palette then the remaining palettes do not present all available nodes for selection, i.e., do not present the nodes of the second palette. For example, if the "VISA" palette in Fig. 7 is taken to be the "second palette" then the other palettes cannot properly be equated with the "at least one first palette" because the only palette that presents the VISA function nodes for selection is the "VISA" palette itself.

Appellant thus submits that claim 1 is patentable over Sojoodi for at least the reasons discussed above. Since claim 1 is patentable over Sojoodi, Appellant also submits the claims dependent on claim 1 are patentable over Sojoodi, for at least this reason. Claims 19 and 31 are memory medium and system claims, respectively, that recite similar elements as claim 1. Appellant thus submits that claims 19 and 31, as well as their dependent claims, are also patentable over Sojoodi.

Appellant also notes that several other independent claims recite similar elements as claim 1, some of which are discussed below. The arguments given above are not reproduced in detail for each of the other independent claims. However, inasmuch as the

other independent claims recite similar elements as claim 1, the arguments given in the context of claim 1 apply with equal force to these other claims.

### Claims 9 and 25

Claims 9 and 25 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Claims 9 and 25 are separately patentable because the cited references do not teach or suggest the limitations recited in these claims. For example, claim 9 adds to claim 1 the element of, "automatically including the one or more suggested nodes in the graphical program". Sojoodi teaches including a node in a graphical program directly in response to user input requesting the node to be included in the graphical program, but does not teach <u>automatically</u> including a node in a graphical program, either a suggested node or otherwise. Appellant thus submits that claims 9 and 25 are patentable over Sojoodi.

### Claims 8, 24, and 32

Claims 8, 24, and 32 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Claims 8, 24, and 32 are separately patentable because the cited references do not teach or suggest the further limitations recited in these claims. For example, claim 8 adds to claim 1 the elements of, "receiving user input requesting to include a first suggested node in the graphical program" and "including the first suggested node in the graphical program". Claim 8 depends on claim 1, which recites displaying the one or more suggested nodes in a second palette. However, Sojoodi does not teach displaying one or more suggested nodes in a second palette, as discussed above with reference to claim 1. Therefore, Sojoodi also does not teach "receiving user input requesting to include a first suggested node in the graphical program" or "including the first suggested node in the graphical program". Appellant thus submits that claims 8, 24, and 32 are patentable over Sojoodi.

### Claims 11 and 27

Claims 11 and 27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sojoodi in view of Choy. However, Appellant submits that the cited references,

taken either singly or in combination, do not teach the elements recited in claims 11 and 27. For example, claim 11 adds to claim 10 the element of, "wherein said determining the one or more suggested nodes comprises determining that the one or more suggested nodes are necessary to complete an operation performed by the one or more nodes selected by the user input."

Choy teaches that:

"An instruction is constructed by moving selected icons into a rule construction area. A selection of components that may correctly be inserted into the instruction is provided at each stage of construction of the instruction. Components that may not correctly be inserted into the instruction are disabled. The disabled icons are visually provided as 'grayed' icons. As the instruction is developed with additional icons, the selection of correct components changes to correspond to the changing instruction." (Abstract; Col. 1, line 59 – Col. 2, line 8).

Thus, Choy teaches disabling icons for certain components that cannot be correctly inserted into an instruction, e.g., based on the components currently in the instruction. However, this is not at all the same as determining one or more suggested icons or components that are <u>necessary to complete an operation</u> (or an instruction). Appellant thus submits that claims 11 and 27 are patentable over Sojoodi and Choy.


## Claims 14, 15, and 29

Claims 14, 15, and 29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sojoodi in view of Choy. However, Appellant submits that the cited references, taken either singly or in combination, do not teach the elements recited in claims 14, 15, and 29. For example, claim 14 adds to claim 12 the element of, "wherein the algorithm is operable to determine the one or more suggested nodes based on previously stored data regarding nodes that frequently occur in graphical programs along with the one or more nodes selected by the user input."

Choy does not teach determining one or more suggested icons to include in an instruction based on previously stored data regarding icons that frequently occur along with the icons that are already in the instruction. Instead, Choy teaches disabling icons for certain components that cannot be correctly inserted into an instruction, as described above. Appellant can find no teaching in Choy about the use of previously stored data

regarding icons that frequently occur together in an instruction. The method that Choy uses to disable icons is shown in Fig. 4E and described at Col. 8, line 29 – Col. 10, line 51. This portion of Choy mentions nothing about the use of previously stored data regarding icons that frequently occur together in an instruction. Appellant thus submits that claim 14 is patentable over Sojoodi and Choy. Inasmuch as claims 15 and 29 recite similar elements as claim 14, Appellant submits that these claims are also patentable over Sojoodi and Choy.

## Claims 16 and 30

Claims 16 and 30 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sojoodi in view of Choy. However, Appellant submits that the cited references, taken either singly or in combination, do not teach the elements recited in claims 16 and 30. For example, claim 16 adds to claim 10 the element of, "wherein said determining the one or more suggested nodes comprises performing an artificial intelligence heuristic to determine the one or more suggested nodes based on the one or more nodes selected by the user input."

Appellant can find no teaching in Choy regarding performing an artificial intelligence heuristic to determine one or more suggested nodes or icons. The Examiner asserts that, "The use of an expert system in Choy then suggests the artificial intelligence heuristic of claims 16, 30, 53." However, what Choy actually teaches is that, "On a data processing system, complex instructions, such as expert system rules, for operating the data processing system are created by providing a guide for the correct formulation of the instructions" (Abstract). Thus, Choy teaches the creation of instructions (e.g., expert system rules), wherein the system aids the user in the creation of the instructions (expert system rules) by disabling icons for certain components that cannot be correctly inserted into an instruction (expert system rule). While the expert system rules or instructions that are created may ultimately be used in an expert system, Choy does not teach the use of an expert system to create the expert system rules and instructions. In particular, Choy simply does not teach performing an artificial intelligence heuristic to determine one or more suggested icons to include in an expert system rule or instruction. Appellant thus submits that claims 16 and 30 are patentable over Sojoodi and Choy.

## Claim 17

Claim 17 stands rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Claim 17 is separately patentable because the cited references do not teach or suggest the limitations recited in this claim. Claim 17 adds to claim 1 the elements of, "receiving user input specifying suggestion criteria" and "determining the one or more suggested nodes based on the one or more nodes selected by the user input and based on the suggestion criteria". As described above, Sojoodi contains no teaching whatsoever regarding determining and displaying one or more suggested nodes based on nodes a user selects to include in the graphical program. Furthermore, Sojoodi certainly does not teach or suggest the concept of allowing a user to specify suggestion criteria to be used in determining the suggested nodes. Appellant thus submits that claim 17 is patentable over Sojoodi.

## Claim 35

Claim 35 stands rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Appellant respectfully traverses this rejection. Claim 35 recites as follows:

> 35. (Original) A computer-implemented method for creating a graphical user interface for a graphical program, the method comprising:
> displaying a window for creating the graphical user interface for the graphical program;
> displaying one or more user interface elements in the window in response to user input;
> determining one or more suggested user interface elements in response to the user input; and
> displaying the one or more suggested user interface elements.

Thus, the method comprises displaying one or more user interface elements in the window for creating the graphical user interface for the graphical program in response to user input, and also determining one or more suggested user interface elements in response to this same user input. These features are simply not taught or suggested in Sojoodi.

In the rejection of claim 35, the Examiner cites Col. 11, lines 59-67 of Sojoodi, which teaches that, "The screen shot of FIG. 6 comprises an instrument front panel in a

window in the upper portion of the screen and a block diagram in a window in the lower portion of the screen." The instrument front panel displays various user interface elements. However, the Examiner provides no reference as to where he believes Sojoodi teaches the elements of, "determining one or more suggested user interface elements in response to the user input" and "displaying the one or more suggested user interface elements". Appellant respectfully submits that Sojoodi does not teach or even remotely suggest these features. Appellant thus submits that claim 35 is patentable over Sojoodi.

## Claim 36

Claim 36 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Sojoodi in view of Choy. Appellant respectfully traverses this rejection. Claim 36 recites as follows:

> 36. (Previously Presented)  A computer-implemented method for creating a script, the method comprising:
> receiving user input selecting one or more steps to include in the script from at least one first palette, wherein the at least one first palette presents a plurality of all available steps for selection;
> including the one or more selected steps in the script; and
> displaying one or more suggested steps to include in the script in a second palette, based on the one or more steps selected by the user input, wherein the second palette is separate from the at least one first palette, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

In the rejection of claim 36, Sojoodi is relied on to teach many aspects of the claim. However, the arguments given above with respect to claim 1 also apply to claim 36. For example, Sojoodi does not teach a first palette that presents a plurality of all available steps (or nodes) for selection and a second palette that displays one or more suggested steps (or nodes), where the second palette is separate from the first palette.

Furthemore, Appellant respectfully submits that the Examiner has not established a proper *prima facie* case of obviousness. As the Board of Patent Appeals and Interferences is certainly aware, "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must

be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)" as stated in the MPEP §2142.

As held by the U.S. Court of Appeals for the Federal Circuit in *Ecolochem Inc. v. Southern California Edison Co.*, an obviousness claim that lacks evidence of a suggestion or motivation for one of skill in the art to combine prior art references to produce the claimed invention is defective as hindsight analysis. Furthermore, the showing of a suggestion, teaching, or motivation to combine prior teachings "must be clear and particular. . .Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence'." *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). The art must fairly teach or suggest to one to make the specific combination as claimed. That one achieves an improved result by making such a combination is no more than hindsight without an initial suggestion to make the combination.

Applicant respectfully submits that there is no clear and particular teaching or suggestion in the prior art for combining Sojoodi and Choy. The Examiner states that, "It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to add the expert system node-prediction in Choy into Sojoodi's graphical program, because one of ordinary skill in the art would found motivation in the resultant construction of proper sequences of related elements, which Choy's addition supports by its expert system prediction." Thus, the Examiner is essentially stating that the motivation to combine Choy with Sojoodi would be the alleged improvement achieved, which of course is no more than hindsight. As discussed above, there must be a clear and particular initial suggestion <u>in the prior art</u> to make the combination, and the Examiner has provided no evidence of such a suggestion in the prior art itself.

Furthermore, Appellant submits that it is not at all obvious how the icon disabling technique taught in Choy would be applied to Sojoodi's graphical programming system. The method used to disable icons in Choy is illustrated in Fig. 4E and described at Col. 8, line 29 – Col. 10, line 51. Choy teaches that:

"The method of FIG. 4E classifies the icons into five distinct types based upon the function or element the icon represents. These types are: base icons, immediate icons, group icons, one-shot icons, and connector icons.

Base icons represent source objects. Source objects contain other objects. For example, in the electronic mail icon palette 35 shown in FIGS. 2 and 3, the in-basket, server in-basket, and mail drawer icons represent source objects from which other objects can be retrieved or to which other objects can be sent. A mail package can be retrieved from or sent to an in-basket. Therefore, these icons are base icons.

Immediate icons represent subject objects which are to be evaluated or upon which an action is to be taken. In the electronic mail icon palette 35 the mail package icon and the file icon are immediate icons representing a mail package and a file, respectively, upon which actions may be taken, or which may be evaluated.

Group icons represent actions that may be taken on an object. In the electronic mail icon palette 35 the group icons include: the printer icon, the trash can icon, the folder icon, the reminder icon, the shredder icon, the question icon, the open package window icon, the reply icon, and the forward icon. Use of the printer icon causes an object to be printed at a printer; the trash can icon causes an object to be placed in a condition to be erased from the data system network memory; the folder icon causes an object to be saved on the data system network memory; the reminder icon causes the workstation to prompt the user upon occurrence of a specified event; the shredder icon causes an object to be erased from the data system network; the question icon causes the workstation to evaluate whether a condition has occurred; the open package window icon causes an object to be displayed on the workstation; the reply icon causes a prearranged reply to be sent to another user in response to a specified event; and the forward icon causes an object to be forwarded to another user.

One shot icons also represent actions that may be taken, however, a one shot icon may be used only once in a rule. In the electronic mail icon palette 35 the switch icon and the clock icon are one shot icons. The switch icon turns the rule on or off, and the clock icon may be used to set a time for invocation of the rule.

Finally, connector icons are icons used to couple actions and objects together in the rule. In the electronic mail icon palette 35, the connector down icon and the connector right icon are connector icons.

The specific icons available in a palette and their classifications and interrelationships among each other vary from one expert system to another and are defined by the specifications of the particular expert system at hand. Thus, for an expert system that does not deal with electronic mail, some icons other than those shown in FIG. 2 may be provided." (Col. 8, line 41 – Col. 9, line 27)

Thus, Choy classifies the icons into five types. The method that Choy teaches for determining which of the icons should be disabled is based on the types of the icons, as described at Col. 9, line 27 – Col. 10, line 51.

However, the icon classification and the icon disabling method taught in Choy are not applicable to the function nodes of Sojoodi's graphical programming system. For example, there are no nodes in Sojoodi's graphical programming system that would be classified as "immediate icons" that represent objects such as a mail package or file. Similarly, there are no nodes that would be classified as "base icons" that represent source objects which contain other objects such as an in-basket or mail drawer.

Since Choy's icon disabling method depends fundamentally on an icon classification technique which does not apply to Sojoodi's graphical program nodes, Appellant submits that one skilled in the art would not be motivated to use the icon disabling method taught in Choy in Sojoodi's graphical programming system. Furthermore, there is no reasonable expectation that this would be a successful combination.

Appellant thus submits that the 103(a) rejection of claim 36, and the other 103(a) claim rejections that rely on the combination of Sojoodi with Choy, are not proper rejections.


## Claim 37

Claim 37 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Sojoodi in view of Choy. Claim 37 is separately patentable because the cited references do not teach or suggest the limitations recited in this claim. Claim 37 adds to claim 36 the elements of, "wherein the steps comprise image processing steps" and "wherein the script is operable to perform an image processing process".

The Examiner erroneously asserts that, "In Sojoodi, the developed results of a graphical program drive 'an image processing process' (claim 37), if only to produce the iconic display." However, Sojoodi's function nodes or icons are displayed by the graphical programming system which is used to develop graphical programs. Sojoodi does not teach a graphical program producing an "iconic display" as asserted by the Examiner. Furthermore, displaying a plurality of icons (which is presumably what the Examiner means by producing an "iconic display") is not at all what is meant by performing an image processing process. Appellant thus submits that claim 37 is patentable over Sojoodi and Choy.

## Claims 7, 38, and 39

Claims 7, 38, and 39 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Appellant respectfully traverses this rejection. Claim 38 recites as follows:

> 38. (Previously Presented) A computer-implemented method for creating a graphical program, the method comprising:
> receiving user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;
> including the one or more selected nodes in the graphical program;
> determining one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input; and
> displaying the one or more suggested nodes as shadow nodes that follow a mouse cursor, wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

As discussed above with reference to claim 1, Sojoodi does not teach the concept of, "determining one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input." Sojoodi also does not teach "displaying the one or more suggested nodes as shadow nodes that follow a mouse cursor." Appellant thus submits that claim 38 is patentable over Sojoodi. Inasmuch as claims 7 and 39 recite similar elements as claim 38, Appellant submits that these claims are also patentable over Sojoodi.

## Claims 40 and 41

Claims 40 and 41 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sojoodi in view of Thomsen. Applicant respectfully traverses this rejection. Claim 40 recites as follows:

> 40. (Previously Presented) A computer-implemented method for creating a graphical program, the method comprising:
> receiving user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;
> including the one or more selected nodes in the graphical program;
> determining one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input; and

providing audio suggestions indicating the one or more suggested nodes, wherein one or more suggested nodes are selectable by the user for inclusion in the graphical program.

In the rejection of claim 40, Sojoodi is relied on to teach many aspects of the claim. However, the arguments given above with respect to claim 1 also apply to claim 40. For example, Sojoodi does not teach "determining one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input".

Appellant also submits that the combination of Sojoodi and Thomsen does not teach, "providing audio suggestions indicating the one or more suggested nodes". Thomsen teaches a debugging environment that provides an audio probe feature which enables a user to select a wire or connector connected to a graphical object and "hear" the signals propagating on the wire or input to/output from the object (see Abstract). However, Thomsen does not teach the concept of determining one or more suggested nodes to include in a graphical program, and neither does Sojoodi. Thus, neither of the references provide a clear and particular teaching or suggestion that would lead one to utilize audio in conjunction with one or more suggested nodes. Appellant thus submits that claim 40 and claim 41, which recites similar features, are patentable over Sojoodi and Thomsen.

## Claims 42 and 43

Claims 42 and 43 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Appellant respectfully traverses this rejection for reasons similar to those discussed above with reference to claims 1 and 8. For example, Sojoodi does not teach, "determining one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input" and "including the one or more suggested nodes in the graphical program".

## Claims 44 and 45

Claims 44 and 45 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Appellant respectfully traverses this rejection for reasons similar to those discussed above with reference to claims 1 and 35.


## Claims 46, 47, 50, and 54

Claims 46, 47, 50, and 54 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Appellant respectfully traverses this rejection. Claim 46 recites as follows:

> 46. (Previously Presented) A computer-implemented method for creating a graphical program, the method comprising:
> receiving user input selecting one or more nodes to include in the graphical program from at least one first graphical user interface, wherein the at least one first graphical user interface presents a plurality of all available nodes for selection;
> including the one or more selected nodes in the graphical program; and
> displaying one or more suggested nodes to include in the graphical program in a second graphical user interface, based on the one or more nodes selected by the user input, wherein the second graphical user interface is separate from the at least one first graphical user interface, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

In the rejection of claim 46 the Examiner relies on the same (faulty) reasoning as the rejection of claim 1, stating that, "This line of reasoning also applies to broader independent claims 46, 54, since a 'graphical user interface' is provided in Sojoodi for 'selecting one or more nodes' and 'suggested nodes', as by the 'palette' that satisfies claim 47, and to the 'graphical user interface' / 'palette' combination that appears in independent claim 55." However, since the rejection of claim 1 has been shown above to be erroneous, Appellant respectfully submits that the rejections of claims 46 and 54 are also erroneous.


## Claim 48

Claim 48 stands rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Appellant respectfully traverses this rejection for reasons similar to those discussed above with reference to claims 1, 8, and 46.

## Claim 49

Claim 49 stands rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Appellant respectfully traverses this rejection for reasons similar to those discussed above with reference to claims 1, 9, and 46.

## Claim 51

Claim 51 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Sojoodi in view of Choy. Appellant respectfully traverses this rejection for reasons similar to those discussed above with reference to claim 11.

## Claim 52

Claim 52 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Sojoodi in view of Choy. Appellant respectfully traverses this rejection for reasons similar to those discussed above with reference to claim 14.

## Claim 53

Claim 53 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Sojoodi in view of Choy. Appellant respectfully traverses this rejection for reasons similar to those discussed above with reference to claim 16.

## Claim 55

Claim 55 stands rejected under 35 U.S.C. 102(b) as being anticipated by Sojoodi. Appellant respectfully traverses this rejection for reasons similar to those discussed above with reference to claims 1 and 46.

# VIII. CONCLUSION

For the foregoing reasons, it is submitted that the Examiner's rejection of claims 1-3, 5-8, 10-17, 19-22, 24-30, 32-35, 37-48, and 50-67 was erroneous, and reversal of his decision is respectfully requested.

The Commissioner is authorized to charge the appeal brief fee of $500.00 and any other fees that may be due to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5150-54300/JCH. This Appeal Brief is submitted with a return receipt postcard.

Respectfully submitted,

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Date: September 1, 2005 JCH/JLB

# IX.   CLAIMS APPENDIX

The following lists the claims as incorporating entered amendments, and as on appeal.

1. (Previously Presented)   A computer-implemented method for creating a graphical program, the method comprising:

receiving user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

including the one or more selected nodes in the graphical program; and

displaying one or more suggested nodes to include in the graphical program in a second palette, based on the one or more nodes selected by the user input, wherein the second palette is separate from the at least one first palette, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

2. (Original)  The method of claim 1,

wherein the graphical program comprises a block diagram portion and a user interface portion.

3. (Original)  The method of claim 1,

wherein the graphical program comprises a graphical data flow program.

4. (Original)  The method of claim 1, further comprising:

interconnecting nodes included in the graphical program to visually indicate functionality of the graphical program.

5 - 6. (Cancelled)

7. (Previously Presented)  The method of claim 1,

wherein said displaying the one or more suggested nodes comprises displaying the one or more suggested nodes as shadow nodes that follow a mouse cursor.

8. (Original) The method of claim 1, further comprising:

receiving user input requesting to include a first suggested node in the graphical program; and

including the first suggested node in the graphical program.

9. (Original) The method of claim 1, further comprising:

automatically including the one or more suggested nodes in the graphical program.

10. (Original) The method of claim 1, further comprising:

determining the one or more suggested nodes.

11. (Previously Presented) The method of claim 10,

wherein said determining the one or more suggested nodes comprises determining that the one or more suggested nodes are necessary to complete an operation performed by the one or more nodes selected by the user input.

12. (Previously Presented) The method of claim 10,

wherein said determining the one or more suggested nodes comprises performing an algorithm to determine the one or more suggested nodes based on the one or more nodes selected by the user input.

13. (Previously Presented) The method of claim 12,

wherein the algorithm is hard-coded to always determine the one or more suggested nodes in response to the one or more nodes selected by the user input.

14. (Previously Presented) The method of claim 12,

wherein the algorithm is operable to determine the one or more suggested nodes based on previously stored data regarding nodes that frequently occur in graphical programs along with the one or more nodes selected by the user input.

15. (Previously Presented) The method of claim 10,

wherein said determining the one or more suggested nodes comprises determining that the one or more suggested nodes frequently appear in graphical programs that include the one or more selected nodes.

16. (Previously Presented) The method of claim 10,

wherein said determining the one or more suggested nodes comprises performing an artificial intelligence heuristic to determine the one or more suggested nodes based on the one or more nodes selected by the user input.

17. (Previously Presented) The method of claim 1, further comprising:

receiving user input specifying suggestion criteria;

determining the one or more suggested nodes based on the one or more nodes selected by the user input and based on the suggestion criteria.

18. (Original) The method of claim 1,

wherein the graphical program is operable to perform one or more of:

      an industrial automation function;

      a process control function;

      a test and measurement function.

19. (Previously Presented) A memory medium for creating a graphical program, the memory medium comprising program instructions executable to:

receive user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

include the one or more selected nodes in the graphical program; and

displaying one or more suggested nodes to include in the graphical program in a second palette, based on the one or more nodes selected by the user input, wherein the second palette is separate from the at least one first palette, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

20. (Original)  The memory medium of claim 19,

wherein the graphical program comprises a block diagram portion and a user interface portion.

21. (Original)  The memory medium of claim 19,

wherein the graphical program comprises a graphical data flow program.

22. – 23. (Cancelled)

24. (Original)  The memory medium of claim 19, further comprising program instructions executable to:

receive user input requesting to include a first suggested node in the graphical program; and

include the first suggested node in the graphical program.

25. (Original)  The memory medium of claim 19, further comprising program instructions executable to:

automatically include the one or more suggested nodes in the graphical program.

26. (Original)  The memory medium of claim 19, further comprising program instructions executable to:

determine the one or more suggested nodes.

27. (Previously Presented)  The memory medium of claim 26,

wherein said determining the one or more suggested nodes comprises determining that the one or more suggested nodes are necessary to complete an operation performed by the one or more nodes selected by the user input.

28. (Previously Presented)  The memory medium of claim 26,

wherein said determining the one or more suggested nodes comprises performing an algorithm to determine the one or more suggested nodes based on the one or more nodes selected by the user input.

29. (Previously Presented)  The memory medium of claim 26,

wherein said determining the one or more suggested nodes comprises determining that the one or more suggested nodes frequently appear in graphical programs that include the one or more selected nodes.

30. (Previously Presented)  The memory medium of claim 26,

wherein said determining the one or more suggested nodes comprises performing an artificial intelligence heuristic to determine the one or more suggested nodes based on the one or more nodes selected by the user input.

31. (Previously Presented)  A system for creating a graphical program, the system comprising:

a memory medium storing program instructions;

a processor;

wherein the processor is operable to execute the program instructions to:

receive user input specifying one or more nodes to include in a graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

include the one or more selected nodes in the graphical program; and

display one or more suggested nodes to include in the graphical program in a second palette, based on the one or more nodes selected by the user input, wherein

the second palette is separate from the at least one first palette, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

32. (Original)  The system of claim 31, wherein the processor is further operable to execute the program instructions to:

receive user input requesting to include a first suggested node in the graphical program; and

include the first suggested node in the graphical program.

33. (Cancelled)

34. (Previously Presented)  A computer-implemented method for creating a graphical program, the method comprising:

displaying a graphical programming window for creating a graphical program;

displaying one or more nodes in the window in response to user input selecting the one or more nodes from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

determining one or more suggested nodes in response to the user input; and

displaying the one or more suggested nodes in a second palette, wherein the second palette is separate from the at least one first palette, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

35. (Original)  A computer-implemented method for creating a graphical user interface for a graphical program, the method comprising:

displaying a window for creating the graphical user interface for the graphical program;

displaying one or more user interface elements in the window in response to user input;

determining one or more suggested user interface elements in response to the user input; and

displaying the one or more suggested user interface elements.


36. (Previously Presented) A computer-implemented method for creating a script, the method comprising:

receiving user input selecting one or more steps to include in the script from at least one first palette, wherein the at least one first palette presents a plurality of all available steps for selection;

including the one or more selected steps in the script; and

displaying one or more suggested steps to include in the script in a second palette, based on the one or more steps selected by the user input, wherein the second palette is separate from the at least one first palette, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.


37. (Original) The method of claim 36,

wherein the steps comprise image processing steps;

wherein the script is operable to perform an image processing process.


38. (Previously Presented) A computer-implemented method for creating a graphical program, the method comprising:

receiving user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

including the one or more selected nodes in the graphical program;

determining one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input; and

displaying the one or more suggested nodes as shadow nodes that follow a mouse cursor, wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

39. (Previously Presented)  A memory medium for creating a graphical program, the memory medium comprising program instructions executable to:

receive user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

include the one or more selected nodes in the graphical program;

determine one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input; and

display the one or more suggested nodes as shadow nodes that follow a mouse cursor, wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

40. (Previously Presented)  A computer-implemented method for creating a graphical program, the method comprising:

receiving user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

including the one or more selected nodes in the graphical program;

determining one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input; and

providing audio suggestions indicating the one or more suggested nodes, wherein one or more suggested nodes are selectable by the user for inclusion in the graphical program.

41. (Previously Presented)  A memory medium for creating a graphical program, the memory medium comprising program instructions executable to:

receive user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

include the one or more selected nodes in the graphical program;

determine one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input; and

provide audio suggestions indicating the one or more suggested nodes, wherein one or more suggested nodes are selectable by the user for inclusion in the graphical program.


42. (Previously Presented)   A computer-implemented method for creating a graphical program, the method comprising:

receiving user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

including the one or more selected nodes in the graphical program;

determining one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input; and

including the one or more suggested nodes in the graphical program, wherein the one or more suggested nodes are selectable by the user for removal from the graphical program.


43. (Previously Presented)  A memory medium for creating a graphical program, the memory medium comprising program instructions executable to:

receiving user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

including the one or more selected nodes in the graphical program;

determining one or more suggested nodes to include in the graphical program, based on the one or more nodes selected by the user input; and

including the one or more suggested nodes in the graphical program, wherein the one or more suggested nodes are selectable by the user for removal from the graphical program.

44. (Previously Presented) A computer-implemented method for creating a graphical program, the method comprising:

receiving user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

including the one or more selected nodes in the graphical program;

displaying one or more suggested nodes to include in the graphical program in a second palette, based on the one or more nodes selected by the user input, wherein the second palette is separate from the at least one first palette, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program;

displaying a window for creating a graphical user interface for the graphical program;

displaying one or more user interface elements in the window in response to user input;

determining one or more suggested user interface elements in response to the user input; and

displaying the one or more suggested user interface elements, wherein the one or more suggested user interface elements are selectable by the user for inclusion in the graphical program.

45. (Previously Presented) A memory medium for creating a graphical program, the memory medium comprising program instructions executable to:

receive user input selecting one or more nodes to include in the graphical program from at least one first palette, wherein the at least one first palette presents a plurality of all available nodes for selection;

include the one or more selected nodes in the graphical program;

display one or more suggested nodes to include in the graphical program in a second palette, based on the one or more nodes selected by the user input, wherein the second palette is separate from the at least one first palette, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program;

display a window for creating a graphical user interface for the graphical program;

display one or more user interface elements in the window in response to user input;

determine one or more suggested user interface elements in response to the user input; and

display the one or more suggested user interface elements, wherein the one or more suggested user interface elements are selectable by the user for inclusion in the graphical program.

46. (Previously Presented)   A computer-implemented method for creating a graphical program, the method comprising:

receiving user input selecting one or more nodes to include in the graphical program from at least one first graphical user interface, wherein the at least one first graphical user interface presents a plurality of all available nodes for selection;

including the one or more selected nodes in the graphical program; and

displaying one or more suggested nodes to include in the graphical program in a second graphical user interface, based on the one or more nodes selected by the user input, wherein the second graphical user interface is separate from the at least one first graphical user interface, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

47. (Previously Presented) The method of claim 46, wherein the at least one first graphical user interface and/or the second graphical user interface comprises one or more of:

a palette;

a menu;

buttons;

checkboxes;

a list box;

a graph; and

a shadow node display that follows a mouse cursor.

48. (Previously Presented) The method of claim 46, further comprising:

receiving user input requesting to include a first suggested node in the graphical program; and

including the first suggested node in the graphical program.

49. (Previously Presented) The method of claim 46, further comprising:

automatically including the one or more suggested nodes in the graphical program.

50. (Previously Presented) The method of claim 46, further comprising:

determining the one or more suggested nodes.

51. (Previously Presented) The method of claim 50,

wherein said determining the one or more suggested nodes comprises determining that the one or more suggested nodes are necessary to complete an operation performed by the one or more nodes selected by the user input.

52. (Previously Presented) The method of claim 50,

wherein said determining the one or more suggested nodes comprises determining that the one or more suggested nodes frequently appear in graphical programs that include the one or more selected nodes.

53. (Previously Presented)  The method of claim 50,

wherein said determining the one or more suggested nodes comprises performing an artificial intelligence heuristic to determine the one or more suggested nodes based on the one or more nodes selected by the user input.

54. (Previously Presented)  A memory medium for creating a graphical program, the memory medium comprising program instructions executable to:

receive user input selecting one or more nodes to include in the graphical program from at least one first graphical user interface, wherein the at least one first graphical user interface presents a plurality of all available nodes for selection;

include the one or more selected nodes in the graphical program; and

display one or more suggested nodes to include in the graphical program in a second graphical user interface, based on the one or more nodes selected by the user input, wherein the second graphical user interface is separate from the at least one first graphical user interface, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

55. (Previously Presented)  A computer-implemented method for creating a graphical program, the method comprising:

receiving user input selecting one or more nodes to include in the graphical program from at least one graphical user interface, wherein the at least one graphical user interface presents a plurality of all available nodes for selection;

including the one or more selected nodes in the graphical program; and

displaying one or more suggested nodes to include in the graphical program in a palette, based on the one or more nodes selected by the user input, wherein the palette is

separate from the at least one graphical user interface, and wherein the one or more suggested nodes are selectable by the user for inclusion in the graphical program.

# X.     EVIDENCE APPENDIX

No evidence submitted under 37 CFR §§ 1.130, 1.131 or 1.132 or otherwise entered by the Examiner is relied upon in this appeal.

# XI.   RELATED PROCEEDINGS APPENDIX

There are no related proceedings.